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EXAMINER	
WONG, BLANCHE	

ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/757,917	VIRTANEN, ANU	
	Examiner	Art Unit	
	Blanche Wong	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-9,12,13,15-17 and 20-23* is/are rejected.

7)☒ Claim(s) *5,10,11,14,18 and 19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 January 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Examiner noted that Applicant failed to address some claim rejection under 35 U.S.C. 112, second paragraph, of claims 6-9,12,13, as stated in the last non-final action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claim 6-9,12,13** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claims 6,7,13, it is unclear what is meant by "the amount of coded data transmitted in the first and in the second frames corresponds to a certain fixed amount of original data." Hence, it is difficult to comprehend the technical essence of claims 7 and 13, reciting "puncturing the coded data transmitted in the second frames so that the amount of coded data transmitted in the first and in the second frames corresponds to a certain fixed amount of original data."

With regard to claims 8 and 9, claim 9 recites "the transmission gap having a first duration occurs during two sequential frames" and "the transmission gap having a second duration occurs within one frame". However, claim 8, which claim 9 are dependent, recites "said transmission gap having the first duration" and "said transmission gap having the second duration". It is unclear whether the transmission

gap is identical to said transmission gap because it is unclear whether a first duration is identical to the first duration, and a second duration is identical to the second duration.

With regard to claim 12, it also recites "the transmission gap having the first duration" and is dependent on claim 8. Therefore, claim 12 has similar problem as claim 9. See reason for claim 9.

With regard to claim 12, it is also unclear what is meant by "substantially half of the transmission gap having the first duration occurs during in the previous frame of said two subsequent frames" because it is unclear in which part of a frame substantially half of the transmission gap occurs.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-4,16** are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Willars (U.S. Pat No. 6,597,679).

With regard to claim 1, Willars discloses a method for preparing an interfrequency handover of a certain communication connection from a first frequency (f1, col. 7, ln. 50) to a second frequency (f2, col. 7, ln. 52), said method comprising:

periodically intermitting ("In the compressed mode, ... in order to create a slot of interrupted, spare, space in the otherwise continuous CDMA transmission", col. 7, ln. 29-32) the transmission/receipt of data on the first frequency (f1) for certain transmission gaps 104 (104 is divided into 104A and 104B in Fig. 5, col. 7, ln. 35-37), where the number of transmission gaps 104 is at least one during each transmission period (one frame length of 10 milliseconds, col. 7, ln. 34; "one frame" time, col. 7, ln. 36), a certain sequence (103-105 in Fig. 5) of transmission periods (each 103-105 is 10ms, Fig. 5) is used, and at least one transmission period 104 has a transmission gap 104A having a first duration 104A in Fig. 5, 104 in Fig. 6 (col. 7, ln. 51) and a second transmission gap 104B having a second duration 104B in Fig. 5, 109 in Fig. 6 (col. 7, ln. 56-57), where second duration is different (compare the width of 104A and 104B in Fig. 5; compare the width of 104 and 109 in Fig. 6) from the first duration, and

periodically measurements ("information 109 ... measurement", col. 7, ln. 60) on the second frequency (f2) during the transmission gaps 104B on the first frequency (f1),

as recited in claim 1.

With regard to claim 2, Willars further discloses receiving system information (information 109 is received, col. 7, ln. 56) on the second frequency (at f2, col. 7, ln. 57) during a transmission gap (104B in Fig. 5 or 109 in Fig. 6) on the first frequency (104 is at f1 where 109 is the transmission gap at f2 in Fig. 6).

With regard to claim 3, Willars further discloses all the transmission periods are identical (each 103-105 is 10ms, Fig. 5)("After the slot, a next frame 105 of typical

duration...", col. 7, ln. 38) from the beginning of the first transmission gap (104A in Fig.5) within a transmission period (one frame in Fig. 5) to the end of the last transmission gap (104B in Fig. 5) within the same transmission period (one frame in Fig.5).

With regard to claim 4, Willars further discloses a certain number of transmission periods is repeated cyclically (each 103-105 is 10ms, Fig. 5).

With regard to claim 16, Willars further discloses all transmission periods (each 103-105 is 10ms, Fig. 5) have the same duration (10ms).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 15,17,20,22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Willars.

With regard to claim 15, Willars discloses all transmission periods (each 103-105 is 10ms, Fig. 5) have the same duration (10ms). However, Willars fail to explicitly show all transmission periods having different durations.

A person of ordinary skill in the art would have been motivated to employ different durations in place of the telephone same duration of Willars, in order to

efficiently accommodate more traffic. Additionally, no unexpected results can be seen whether the transmission periods have the same or different durations. The suggestion/motivation to do so would have been to provide for an increased number of subscribers. At the time the invention was made, therefore, it would have been obvious to one of ordinary skills in the art to which the invention pertains to use transmission periods having different durations as specified in claim 15.

With regard to claim 17, Willars discloses receiving data on a first frequency (f1, col. 7, ln. 50); intermitting periodically ("In the compressed mode, ... in order to create a slot of interrupted, spare, space in the otherwise continuous CDMA transmission", col. 7, ln. 29-32) the receipt of data on the first frequency (f1) during certain transmission gaps 104 (104 is divided into 104A and 104B in Fig. 5, col. 7, ln. 35-37), where the number of transmission gaps 104 is at least one during each transmission period (one frame length of 10 milliseconds, col. 7, ln. 34; "one frame" time, col. 7, ln. 36), a certain sequence (103-105 in Fig. 5) of transmission periods (each 103-105 is 10ms, Fig. 5) is used, and at least one transmission period 104 has a transmission gap 104A having a first duration 104A in Fig. 5, 104 in Fig. 6 (col. 7, ln. 51) and a second transmission gap 104B having a second duration 104B in Fig. 5, 109 in Fig. 6 (col. 7, ln. 56-57), the first duration being different (compare the width of 104A and 104B in Fig. 5; compare the width of 104 and 109 in Fig. 6) from the second duration; receiving information about the durations of the at least two transmission gaps (104A and 104B in Fig. 5, 104 and 109 in Fig. 6); and performing measurements ("information 109 ... measurement", col.

7, ln. 60) on the second frequency (f2) during the transmission gaps 104B. However, Willars fails to explicitly show means to do so.

A person of ordinary skill in the art would have been motivated to deploy Willars' method with a mobile station because a method is of no use if it is not encompassed within a device or used within a system. The suggestion/motivation to do so would have been to provide for a means to use Willars' method. At the time the invention was made, therefore, it would have been obvious to one of ordinary skills in the art to which the invention pertains to have 1.) a means for receiving data on a first frequency, 2.) a means for periodically intermitting the receipt of data on the first frequency during certain transmission gaps, where the number of transmission gaps is at least one during each transmission period, a certain sequence of transmission periods is used, and at least one transmission period has a transmission gap having a first duration and a second transmission gap having a second duration, the first duration being different from the second duration; 3.) a means for receiving information about the durations of the at least two transmission gaps; and 4.) a means for performing measurements on the second frequency during the transmission gaps, as specified in claim 17.

With regard to claim 20, Willars discloses receiving data on a first frequency (f1, col. 7, ln. 50); intermitting periodically ("In the compressed mode, ... in order to create a slot of interrupted, spare, space in the otherwise continuous CDMA transmission", col. 7, ln. 29-32) the receipt of data on the first frequency (f1) during certain transmission gaps 104 (104 is divided into 104A and 104B in Fig. 5, col. 7, ln. 35-37), where the number of transmission gaps 104 is at least one during each transmission period (one

frame length of 10 milliseconds, col. 7, ln. 34; "one frame" time, col. 7, ln. 36), a certain sequence (103-105 in Fig. 5) of transmission periods (each 103-105 is 10ms, Fig. 5) is used, and at least one transmission period 104 has a transmission gap 104A having a first duration 104A in Fig. 5, 104 in Fig. 6 (col. 7, ln. 51) and a second transmission gap 104B having a second duration 104B in Fig. 5, 109 in Fig. 6 (col. 7, ln. 56-57), the first duration being different (compare the width of 104A and 104B in Fig. 5; compare the width of 104 and 109 in Fig. 6) from the second duration; receiving information about the durations of the at least two transmission gaps (104A and 104B in Fig. 5, 104 and 109 in Fig. 6); and performing measurements ("information 109 ... measurement", col. 7, ln. 60) on the second frequency (f2) during the transmission gaps 104B. However, Willars fails to discloses transmitting or transmission, as oppose to receiving or receipt, and the means to do so.

A person of ordinary skill in the art would have been motivated to have transmitting or transmission because there would be no receiving or receipt if there isn't any transmitting or transmission, and to deploy Willars' method with a network element because a method is of no use if it is not encompassed within a device or used within a system. The suggestion/motivation to do so would have been to provide for a means to use Willars' method. At the time the invention was made, therefore, it would have been obvious to one of ordinary skills in the art to which the invention pertains to have 1.) a means for transmitting data on a first frequency, 2.) a means for periodically intermitting the transmission of data on the first frequency during certain transmission gaps is at least one during each transmission period, a certain sequence of transmission periods is used, and at least one transmission period has a first duration and a second

transmission gap having a second duration, where the first duration is different from the second duration; and 3.) a means for receiving information about the durations of the at least two transmission gaps within one transmission period, as specified in claim 20.

With regard to claim 22, Willars discloses defining a certain sequence (103-105 in Fig. 5) of transmission periods (each 103-105 is 10ms, Fig. 5), where the number of transmission gaps 104 is at least one during each during each transmission period (one frame length of 10 milliseconds, col. 7, ln. 34; "one frame" time, col. 7, ln. 36); deciding a first duration for at least a certain transmission gap and a second duration of a second transmission gap, where the first duration is different (compare the width of 104A and 104B in Fig. 5; compare the width of 104 and 109 in Fig. 6) from the second duration and said transmission gaps are within at least one transmission period 104 (10ms); transmitting information (information 109) about the transmission periods; and transmitting information about the duration of at least two transmission gaps (104A and 104B in Fig. 5, 104 and 109 in Fig. 6) within one transmission period 104. However, Willars fails to discloses the means to do so.

A person of ordinary skill in the art would have been motivated to deploy Willars' method with a network control element because a method is of no use if it is not encompassed within a device or used within a system. The suggestion/motivation to do so would have been to provide for a means to use Willars' method. At the time the invention was made, therefore, it would have been obvious to one of ordinary skills in the art to which the invention pertains to have 1.) a means for defining a certain sequence of transmission periods, where the number of transmission gaps is at least

one during each transmission period, 2.) a means for deciding a first duration for at least a certain transmission gap and a second duration of a second transmission gap, where the first duration is different from the second duration and said transmission gaps are within at least one transmission period, 3.) a means for transmitting information about the transmission periods, and 4.) a means for transmitting information about the duration of at least two transmission gaps within one transmission period, as specified in claim 22.

8. **Claims 21 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Willars in view of Abrol (U.S. Patent No. 6,507,582).

With regard to claims 21 and 23, Willars further discloses a base station (BS in Fig. 3), radio network controller (RNC in Fig. 3), and WCDMA, col. 6, ln. 57. However, Willars fails to explicitly show UTRA.

In an analogous art, Abrol discloses that ETSI UTRA is also known as wideband CDMA or W-CDMA, col. 2, ln. 44-46.

A person of ordinary skill in the art would have been motivated to deploy Willars' method with a WCDMA or UTRA network. The suggestion/motivation to do so would have been to provide high rate data and high-quality speech services over wireless communication channels. Abrol, col. 2, ln. 37-38. At the time the invention was made, therefore, it would have been obvious to one of ordinary skills in the art to which the invention pertains to have a base station and a RNC of the WCDMA/UTRA network, as specified in claims 21 and 23.

Allowable Subject Matter

9. **Claims 5,10,11,14,18,19** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW
April 1, 2005

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